

## A NEW SPECIES OF *CENTRIS* (*MELANOCENTRIS*) FROM CERRO DE LA NEBLINA, VENEZUELA (HYMENOPTERA: ANTHOPHORIDAE)<sup>1</sup>

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**ABSTRACT:** *Centris* (*Melanocentris*) *gavisa* is described from female specimens collected at Cerro de la Neblina, Amazonas, Venezuela. It is a member of the *C. plumipes* group recognized by the fulvous mesosomal pilosity and the lack of scutellar tubercles.

The following new species is described in order that the name might be available for use by S.S. Renner in a paper on floral visitation by bees on Cerro de la Neblina.

This species of *Centris* (*Melanocentris*) is a member of the group of *C. plumipes* F. Smith, 1854. This is a small group characterized by the conspicuously maculate clypeus of the female, with the lower one-half (approximately) smooth and shiny, the mesosoma, at least, part metallic bluish or greenish, the pale female scopa, the dull, subcontiguously to contiguously punctate metasomal terga, and the subacute apex of the female pygidial plate. *Centris plumipes* ranges from Costa Rica to the Amazonian region of Peru and Brazil (Snelling, 1984). The only other species in the group, *C. lilacina* Cockerell, 1919, is known from Peru and Bolivia.

### *Centris* (*Melanocentris*) *gavisa*, new species

Figures 1-4

**Diagnosis.** A member of the *C. plumipes* group of *Melanocentris*; distinguished from both *C. plumipes* and *C. lilacina* by the pale mesosomal pilosity and the very weakly developed scutellar tubercles.

**Description.** Measurements (paratypes in parentheses) (mm): head width 5.38 (5.49-5.54); head length 4.41 (4.46-4.56); wing length 14.5 (14.1-14.6); total length 21.3 (18.5-21.0).

Head (Fig. 4) 1.22-1.31 times as broad as long; inner eye margins slightly divergent below, upper interocular distance 0.86-0.91 times lower interocular distance; occipital margin, in frontal view, slightly convex. Interocellar distance 1.40-1.46 and ocellocular distance 1.15-1.29 times diameter of anterior ocellus.

Mandible (Fig. 1) slender, but somewhat broadened and abruptly bent before apex; quadridentate, middle preapical tooth nearer subapical tooth than innermost. Maxillary palpus 4-segmented, last segment pointed and about one-half as long as third.

Labrum broader than long, apex narrowly rounded; base shiny and impunctate, disc shiny between contiguous, moderate-sized, piligerous punctures. Clypeus a little broader than

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long, midline slightly raised, polished and impunctate; disc duller, slightly tessellate between moderate, subcontiguous to close punctures. Frons slightly shiny between subcontiguous fine punctures; vertex similar but with scattered moderate punctures and usual impunctate areas adjacent to ocelli, these areas slightly tessellate rather than smooth and polished.

Antennal scape about twice as long as broad; first flagellar segment much longer than broad, about 1.20-1.32 times length of scape and about 1.33-1.50 times combined lengths of following two segments.

Mesosoma robust as usual in *Centris*. Mesoscutum slightly shiny between subcontiguous, moderate punctures over most of disc that become sparse in posterior middle; scutellum similar, but punctures merely close along middle, and with submedian impunctate, very slightly convex areas rather than definite tubercles such as are present in *C. plumipes* and *C. lilacina*. Mesepisternum slightly shiny, punctures dense to subcontiguous and not sharply defined.

Basitibial plate of metatibia (Fig. 2) elongate and lower margin narrowly rounded; secondary plate with posterior margin beyond that of primary plate.

Summit of metasomal tergum 1 punctate across middle, punctures fine and close to sparse, interspaces moderately shiny; discs of terga 2-3 dull, with contiguous, shallow, minute punctures; terga 4-5 also dull, with dense, fine, distinct punctures; pygidial plate (Fig. 3) narrow beyond secondary plate, apex subacute; secondary plate broadly triangular, margins sharply defined.

Pilosity: Whitish, highly plumose hairs on face around antennal sockets, middle of vertex, occipital margin, and gena; entire mesosoma covered by dense, pale fulvous pilosity that becomes lighter below; tergum 1 with pale fulvous hairs on side of dorsal face; terga 4 and 5 with short yellow hairs on discs, but apical fimbria of 5 dark brown. Scopal hairs yellowish. Clypeus mostly bare, but with numerous long, brownish setae of variable length at sides; similar setae scattered on frons and predominating across vertex; hairs of legs mostly very dark brown or blackish; discs of terga 2 and 3 with dense, short, simple blackish hairs.

Integument: Blackish, with blue-green reflections on frons, mesoscutum, mesepisternum, and metasomal terga, except: labrum (except margins), clypeus (except median stripe), and paraocular areas yellowish white; metasomal terga 2 and 3 with transverse reddish bands; terga 4 and 5 variable, from largely dark to largely reddish with small median areas dark. Tegula blackish. Wings dark brown.

Type material. Holotype and three paratype females: "camp VII" Cerro de la Neblina, 00°52'N, 65°58'W, 2100m elev., Amazons, Venezuela, collected by S.S. Renner in 1985 as follows: 31 Jan., on *Saxofridericia compressa*; 4 Feb., on *Diacidia rufa*; 8 Feb., on *Disterigma humboldtii*; 9 Feb., on *S. compressa*; the holotype was collected on 8 Feb. Holotype and one paratype in USNM; two paratypes in LACM.

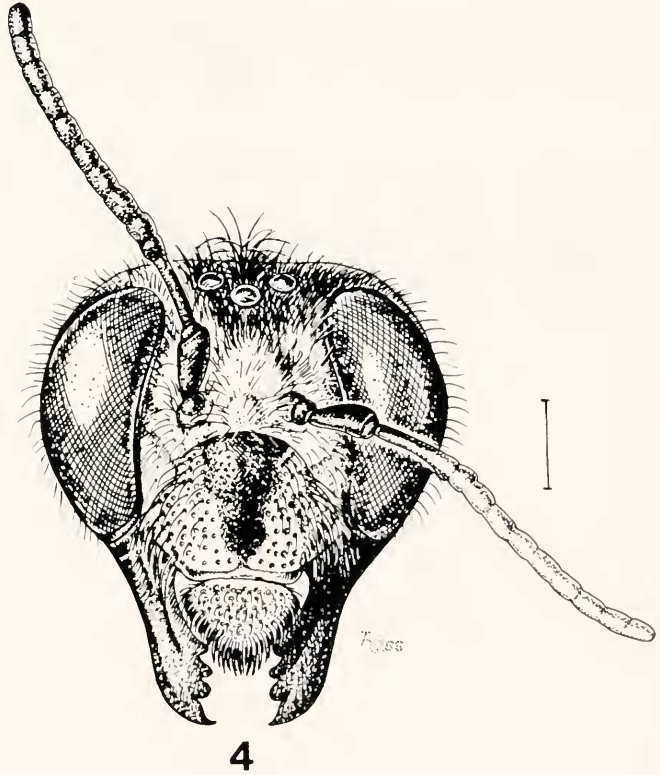
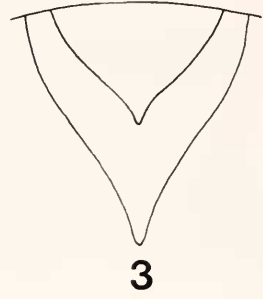
Etymology. From Latin, causing joy, because of the attractive appearance of this bee.

## DISCUSSION

As noted in the diagnosis, this species is easily separated from the other two members of the *C. plumipes* group by the lack of definite tubercles on the scutellum. Both *C. plumipes* and *C. lilacina* possess prominent nude tubercles on either side of the scutellum that are elevated well above the general level of the scutellum, and are directed obliquely away from the

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Figures 1-3, *Centris (Melanocentris) gavisia*, female: 1, mandible (dotted lines show probable shape of unworn teeth); 2, basitibial plate; 3, pygidial plate; 4, front of head. Scale line = 1.0mm.



midline. In *C. gavis* the area where the tubercles would be is impunctate and merely very slightly convex above the general level of the segment.

The pale fulvous pilosity of the mesosoma of *C. gavis* is also characteristic for this species. In *C. plumipes* and *C. lilacina* the hairs of the dorsum and much of the mesepisternum are dark but with pale branches. The metasoma of *C. plumipes* is dark, with segments 3-5 somewhat coppery, and that of *C. lilacina* is predominantly red, with limited blue or blue-green median blotches sometimes present on terga 3-5.

Although no males of *C. gavis* are presently available, they will probably be similar to the females in color, especially of the mesosomal pilosity, and will probably be without scutellar tubercles. Males of both the other species resemble their respective females in color and possess scutellar tubercles, although the tubercles are not as prominent as in the females.

#### ACKNOWLEDGMENTS

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